The world is changing and so are the demands on our discipline. In this talk I will highlight some of the recent trends, namely the rise of empirical software engineering, of multi-core software engineering, of web service engineering, of secure, dependable and energy conscientious engineering. I will also give examples of what my team is doing to address these challenges ranging from work in software analytics (CRANE for risk assessment and effort estimation), to program analysis (Pex and SAGE for security testing, VCC for verifying concurrent C), to new runtimes (TPL for exploiting task parallelism, or Green for approximate computations), to novel operating system designs for the future (ServiceOS for software plus services).

BIO: Wolfram Schulte is a principal researcher and the founding manager of Microsoft’s Research in Software Engineering (RiSE) team in Redmond, WA., USA. His team focuses on improving software productivity by providing better analytics, languages and tools for describing, analyzing, testing and executing software. Before joining Microsoft Research in 1999, he worked at the University of Ulm (1993-1999), at sd&m, a German software company (1992-1993), and at the Technical University Berlin (1987-1992).